Mormon Town Planning: Physical and Social Relevance

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The Plat of the City of Zion, designed in 1833, was the brainchild of Joseph Smith, founder of the Church of Jesus Christ of Latter-day Saints. It embodied the Mormons' desire to build a new kingdom for their people, distinct from mainstream American culture. The resulting pattern is a unique combination of local and foreign precedents. Salt Lake City, a paradigmatic example of this scheme, became the model for surrounding settlements, defining the urban pattern of a segment of the West. The later explosive growth of Utah's capital, and its departure from the original model, transformed one of the pioneering urban experiences of the United States. The physical boundaries of this planning tradition, and the limited general understanding of its use, make it still a rather unique urban phenomenon.

Keywords: urban utopia; Mormon city planning; Plat of the City of Zion; Salt Lake City; Joseph Smith

Town Design in Early American Settlements

The colonization of the United States, initiated in the late sixteenth century, followed two patterns of land occupation: individual properties on virgin land and urban conglomerates. The first strategy, followed by pioneers in their conquest of unknown territory, was the early manifestation of the American Dream, a detached house in a natural landscape. In the second pattern, the schemes adopted by many of the new settlements evidenced the deep influence of European Renaissance models for ideal cities, baroque celebration of urban open space, and the Spanish colonial town model, formalized in the "Laws of Indies."[1] The grid became the archetype of American towns, favored by the availability of land and the need to extend urban areas due to the constant arrival of new immigrants. Philadelphia, Pennsylvania, designed by William Penn in 1682, consolidated the grid pattern as a model to be copied to obtain a rational and efficient town.[2]

Land availability, economic opportunity, freedom of worship, and ideological openness offered newcomers an appealing alternative to the harsh conditions prevailing at the time in Europe. The explosive growth of urban-

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ization during the industrial era, and the social consequences of capitalism and officials' laissez faire attitude, sparked a movement in defense of lost morals. The "golden day"[3] culture did not focus on the physical shortcomings of the industrial city, as its European counterpart did. It intended to reform the corrupted social relations that resulted from the economic model of the time. Utopian experiments in the United States found an ideologically fertile ground in which to prosper[4] and in many cases included the traditional grid in the design of their idealized communities. Social reformers (such as Robert Owen, Etienne Cabet, or the followers of Charles Fourier) and religious congregations (Huguenots, Moravians, and Mormons, among others) envisioned communitarian societies where morality ruled. Spiritual groups were particularly successful in the first decades of the nineteenth century, encouraged by the prevailing transcendentalism and a revolt against the existing social order. Key among these is the Church of Jesus Christ of Latter-day Saints,[5] founded in 1830.

This study provides a fresh understanding of Mormon town planning. Most of the available literature addressing this topic is either dated or contains a bias due to its religious orientation. Many sources remain unaware of the uniqueness of this planning practice in the larger context of U.S. planning history, tending to assume that it was a mere continuation of the traditional American square plat planning. Whether Joseph Smith was a prophet in urban planning cannot be asserted. It is unquestionable that he was a prophet to his people, who faithfully followed his directions in the founding of new communities for more than half a century. He provided them not only with a scheme but with a system of ideas of how to live together as members of Zion.

Plat of the City of Zion

The pattern of territorial occupation followed by the members of the Mormon Church constitutes one of the most remarkable phenomena in the expansion of the United States in the nineteenth century. Mormons left urbanized areas in upstate New York just prior to the mid-nineteenth century, escaping religious intolerance. They isolated themselves in rather sterile and unoccupied land: now the states of Utah, Wyoming, and Nevada, among others. Preparing for the Lord's second coming, they were driven to build the religious capital of the New World—the New Jerusalem.[6]

The founder of the church, Joseph Smith (1805-1844), specified in 1833 how the cities of this community should be planned (see Figure 1). This model, known as the Plat of the City of Zion, measured one square mile, and included forty-nine square blocks, ten acres each (shown in Figure 5). Detailed instructions[7] were written on the contours of the graph to ensure a clear understanding of the pattern. The dimensions of each component were precisely predetermined:

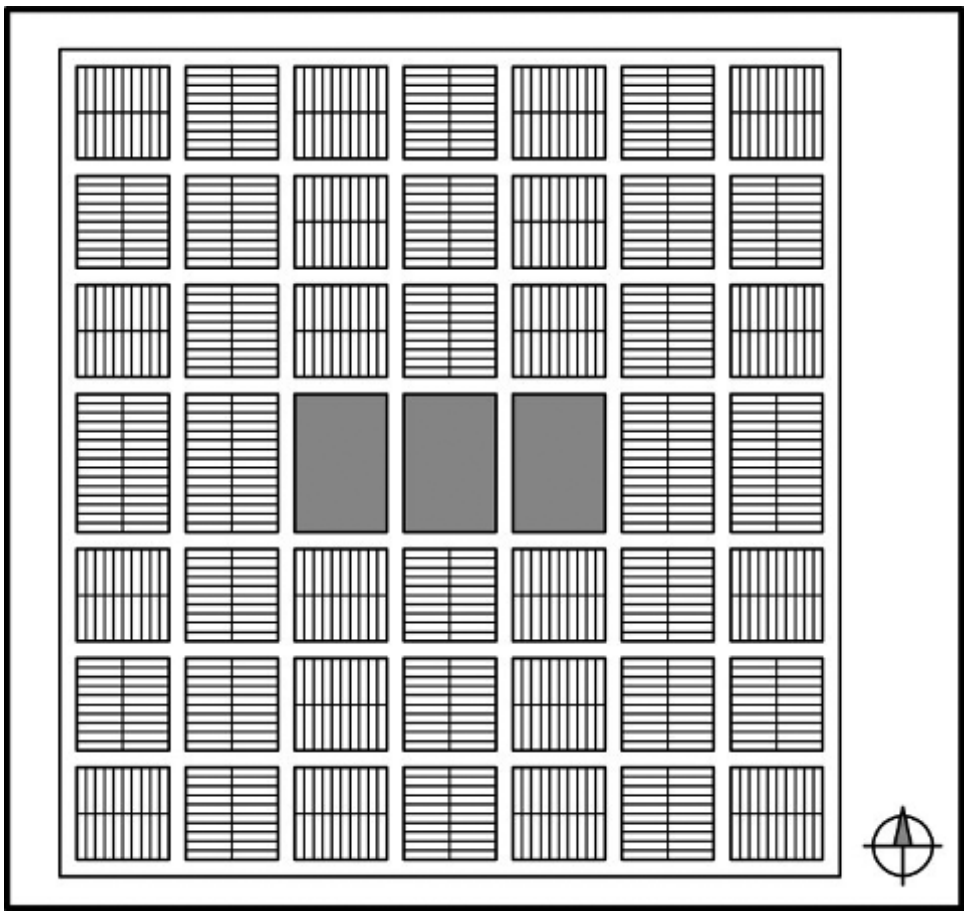

Figure 1: Plat of the City of Zion, by Joseph Smith, 1833
Source: Drawing by the author, based on original in the Archive of the Church of Jesus Christ of Latter-day Saints, Historical Department, Salt Lake City, Utah.

- streets had to be 132 feet wide, including 20-foot sidewalks;
- blocks would be 660 feet on each side, containing 20 half-acre lots apiece; and
- the centerline of the blocks ran east-west against the prevailing squareness, measuring on one side 1.5 the size of the other blocks.

The three central blocks were designed as the sites for public buildings. The two blocks labeled with numbers would contain twelve temples each, divided between the presidency and the lesser priesthood. The third would be dedicated to build the bishop's storehouses. Around these blocks, in a grid pattern, were the blocks for residential use. The arrangement of lots was rather unusual: they were alternately laid in the square so that two facades would not face each other across the street. This distribution was intended to ensure more sunlight, better circulation of fresh air, greater privacy, and less likelihood of fire propagation. In an effort to control the den-

sity and appearance of the urban environment, only one house could be located on each lot, with a setback of twenty-five feet from the street line, and materials were limited to brick and stone. Furthermore, no barns or stables were allowed among the houses, excluding offensive smells and improper appearance. The city of Zion was expected to be the headquarters for the new religion; hence it had to be impressive to visitors and spacious for its residents. Joseph Smith estimated that the optimum population was fifteen to twenty thousand. Once this number was reached, new satellite communities would be created following the same pattern.

Origins

As to the specific ideas that could have guided Joseph Smith into the design of the Plat, there is no written testimony, mainly because it was believed to be the product of a divine revelation to the prophet, and it would be improper for followers to doubt its sacred origin. Nevertheless, the model has some defining features that could relate it to spatial precedents:

- Plan for Old Jerusalem: According to the Bible,[8] it had to be the epitome of regularity, a square city design surrounded by agricultural land—quite an adequate model for the city to be called the "New Jerusalem."
- Laws of Indies: This set of 148 ordinances, issued by King Phillip II in 1573, formalized the pattern followed by Spanish colonists in Central and South America since the early sixteenth century. They dealt with every aspect of site selection, city planning, and political organization to serve as guidelines for the founding and building of towns in the Americas. The scheme was centered on a main square, delimited by the main civic and religious buildings. The streets created a grid system coinciding with the cardinal directions. Surrounding the city, communal land would provide recreation for residents and pasture for animals. An outer ring of private farmland would ensure production and trade of agricultural goods. The first Spanish settlement in the United States was St. Augustine, Florida, founded in 1565.
- Colonial New England towns: These settlements were composed of village lots and communal farms in the surrounding area. In most cases, a regular grid system was adopted, as in New Haven, Connecticut, in 1641. It was the ancestral home of most early converts to Mormonism. This town model later became the dominant American urban scheme.
- Philadelphia, Pennsylvania: The plan was designed in 1682 for William Penn. It is a paradigmatic example of the gridiron and was taken as a model in many American town layouts at the time. The placement of the public buildings as important elements in the city's organization, the presence of a central square, and the uniform spacing and setbacks of buildings are characteristics shared with Mormon cities.[9] In this older design, wide streets were reserved for the city's main axis and to border important public buildings (see Figure 2). Penn clearly had London in mind, not the medieval town but the plans for its rebuilding after the 1666 fire. He was a strong defender of religious tolerance, moving from England to create a utopian society where his fellow Quakers could live at ease, a reality that Smith too had to endure.
- United States Public Land Survey System, adopted by Congress in 1785: This rational strategy subdivided the land into one-mile square grid sections. Thirty-six sections in a block of land measuring six miles on each side constitute a township

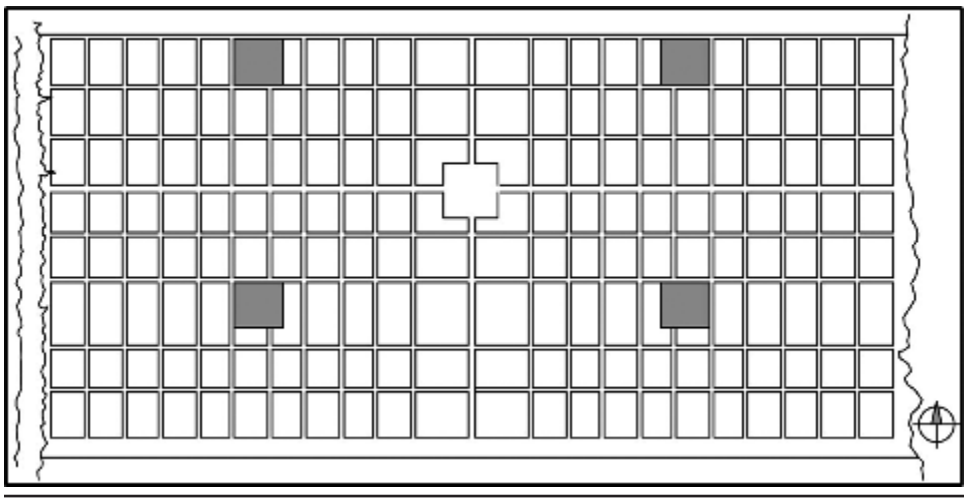

Figure 2: Map of Philadelphia, Pennsylvania, 1682
Source: Drawing by the author, based on a map at the United States Digital Map Library.

(see Figure 3). This unit was implemented as the dimension of the Mormons' ideal city, as was the case for many regular town designs of the period. This measurement accommodation would also ensure easy repetition of the model in the United States territory, in accordance with the federal system.

Because it was the "City of God," order and regularity had to prevail, and nature had to be dominated. Theocentric as well as functional ideas molded space; defined the way the city related to the landscape; and located community institutions, streets, and houses. The use of the grid not only manifested an efficient use of space; it set an underlayment of unity to the entire city and territory, considering that it could be extended endlessly. Nevertheless, the strict expansion of this pattern tended to conflict with the topography, particularly in the mountainous areas in which the Mormons chose to settle, and made communication difficult between distant points in the plat.

The model is a remarkable scheme to have been developed by a twenty-eight-year-old religious man with no experience in town planning.[10] Several features, such as zoning against undesirable uses, density limitations, or aesthetic controls, did not became mainstream in urban planning until the beginning of the twentieth century. The Mormon model actually preceded Ebenezer Howard's formulation of the Garden City[11] idea by sixty-five years. The similarity between these two conceptions is notable:

- Both models were intended as places of gathering and refuge, either for people fleeing unfriendly populations, in the Mormon case, or for those escaping from large and polluted cities, in Howard's Garden City.
- They included measures for controlling use and density.

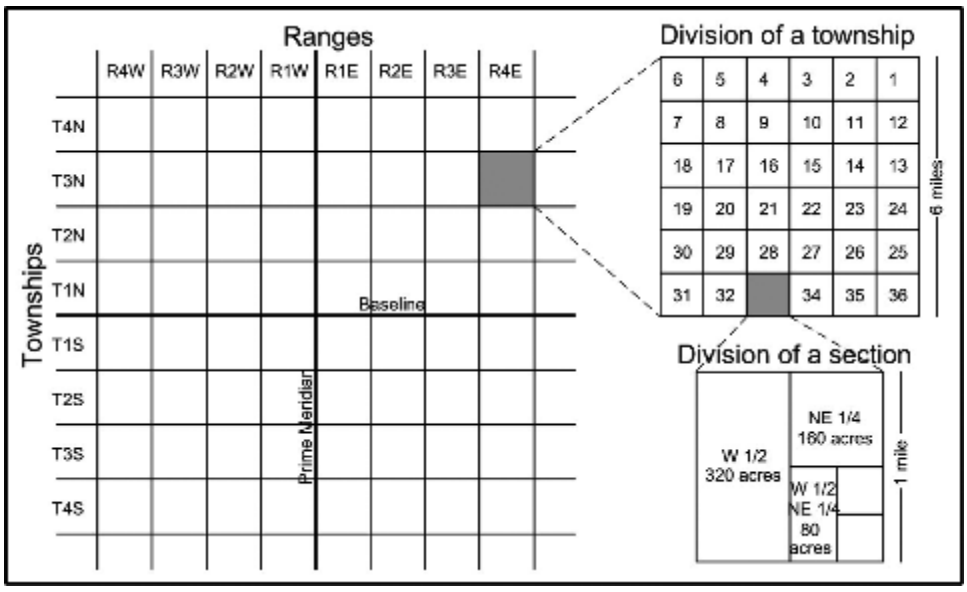

Figure 3: Federal Land Survey Units, 1785
Source: Drawing by the author.

- The urban size was limited by the number of residents and by an agricultural belt. They both spun off satellite communities once the maximum was reached: fifteen to twenty thousand for the Plat of the City of Zion and thirty thousand for the Garden City.
- The ownership of the land was communal.
- There was ward or neighborhood planning for the subdivision of the city.

The two models manifested an intention toward self-sufficiency and a synthesis of rural and urban amenities. Joseph Smith's model contained all the details for land distribution, block and lot size, and activity. On the other hand, Howard's layout was starkly schematic, without much detail in the final form; full attention was paid instead to the community's finances.

> Not even George Washington, although he used L'Enfant to leave some impression of planning in this country, compares with the indigenous, originally creative community design gifts of Joseph Smith, who in fact stands lonely in the far-flung American scene, where no native, non-colonial, non-imported community expression has ever been found again.[12]

As earlier established, the Plat of the City of Zion presented a unique model of land settlement in the United States. In a due acknowledgment, the American Institute of Certified Planners selected this design in 1996 as a National Historic Planning Landmark. It was recognized as a remarkable treatise on urban design that guided the development of more than five hundred settlements in the intermountain West.

From the Concept to Reality

The original design for the Plat of the City of Zion was shortly followed by a "revised plat," drafted also in 1833 by Frederick G. Williams.[13] The original one had been sketched in haste and required the following refinements:

- it introduced 1.5 times more area for the city footprint;
- it eliminated one of the three central blocks reserved for religious buildings;
- it changed the center blocks from a rectangular to a square form, creating a perfectly uniform grid pattern;
- it reduced streets to eighty-two feet, except those delimiting the Temple blocks;[14]
- it called for smaller lots; and
- it projected the projected family size.

The number of inhabitants per house was one of the most controversial issues in the original design. This plat contained forty-nine blocks and approximately one thousand lots in total. With an expected population of twenty thousand people, the average household would be between fifteen and twenty members. In the new version, the average household size dropped to eight. Numerous studies[15] addressing the Mormon city model speculated that the justification for such an extraordinary number lay in the Mormon practice of polygamy. But this practice was not officially adopted until 1852, two decades after the original draft. M. Hamilton's discovery of the "revised plat" clarified this error.

Smith also had in mind an agricultural belt around the city that would ultimately limit its growth.[16] Mormons were expected to live in town and commute out to their fields to work.[17] The village pattern of settlement was preferred over isolated farmsteads because of the social advantages that village living entailed. Safety in numbers, better religious and secular education, easier provision of services and facilities, and an absolute trust in the wisdom of their founder were the most probable reasons for the success of the model. The emphasis on the advantages of city life, as voiced by Mormon leaders, mirrored the contemporary statements of political administrators and developers in the rest of the United States.

The Plat of the City of Zion was to be repeated by Mormon founders in the surrounding territory. They followed a strategy to dominate the area ideologically, to reduce their dependence upon the "gentiles" (non-Mormons), and to create their own religious kingdom. An organized immigration system brought new converts to the area, along with nonbelievers, who joined the population flow to the Midwest. In contrast with frontier immigration in the rest of the United States, the new Mormon population included as many women as men, most of them young, therefore ensuring a high birthrate.[18] The colonization process was quite successful over time. Of the original 537 Mormon settlements, only 88 (17 percent) have been abandoned. Some can now be found as ghost towns, such as Silver Reef or Frisco. Most of these desertions occurred due to the large number of new settlements in a rather

small area, environmental difficulties, changes in the economy, and faster means of transportation.[19]

In each new settlement, the model was adapted to the particular conditions of the location, its preponderant function, and the needs of the incoming population. Early examples include Kirkland, Ohio (1833); Far West, Missouri (1836); and Nauvoo, Illinois (1839). Nauvoo, "the beautiful place," was founded in an area of high land in a curve of the Mississippi River, forcing an alteration in the original Plat of the City of Zion. Temple Square, the focus of the city, shifted from the center of the layout to a higher area, overlooking the river bank. Among other differences, its fifty-foot-wide streets and smaller blocks evidenced a certain recognition of the excessive scale of the original plan (see Figure 5 below). Blocks were subdivided into one-acre lots, double the area prescribed in Smith's proposal.[20] In 1846, by the time of the city's evacuation due to increased intolerance on the part of non-Mormons,[21] Nauvoo had surpassed the twenty thousand population mark.

Salt Lake City—Original Mormon Village

After a decade of prosperous living in Illinois, renewed religious persecution forced the Mormons to escape. Joseph Smith's assassination in June 1844 turned the leadership of the Church to Brigham Young (1801-1877), who decided to resume the quest for a New Kingdom. They moved westwards to uninhabited areas; according to Patricia Limerick, "escaping persecution by a strategy of segregation, a kind of spatial quarantine."[22] The site for the New Zion was selected by Smith's successor due to the area's mild climate, availability of fresh water flowing into the valley, the fertility of the land, and the presence of numerous passes through the neighboring mountain range.[23] The absence of an existing population in the immediate area ensured Mormon cultural dominance. The only disadvantages the settlers later had to confront were the aridity of the climate and the lack of timber. This condition increased their dependence on artificial irrigation systems and forced them to employ alternative construction materials and techniques, such as brick, stone, and adobe.

Salt Lake City, founded in July 1847, was based on the Plat of the City of Zion (see Figure 4). Its original layout, Plat A,[24] included 135 square blocks of 600 feet on each side. Compared with the original plat, it had 68 blocks more, each 60 feet shorter, and the larger size of the center tier of blocks was neglected, as indicated in the revised plat. Blocks were separated by 132-foot-wide streets, with broad sidewalks, and were expected to be subdivided into only 8 lots, 1.25 acres each (see Figure 5). The arrangement of lots followed the alternating pattern prescribed in the Plat, each containing only one house set back 25 feet.

One block was designated as the site for public buildings, where later the Mormon Temple and the Tabernacle, among other religious buildings,

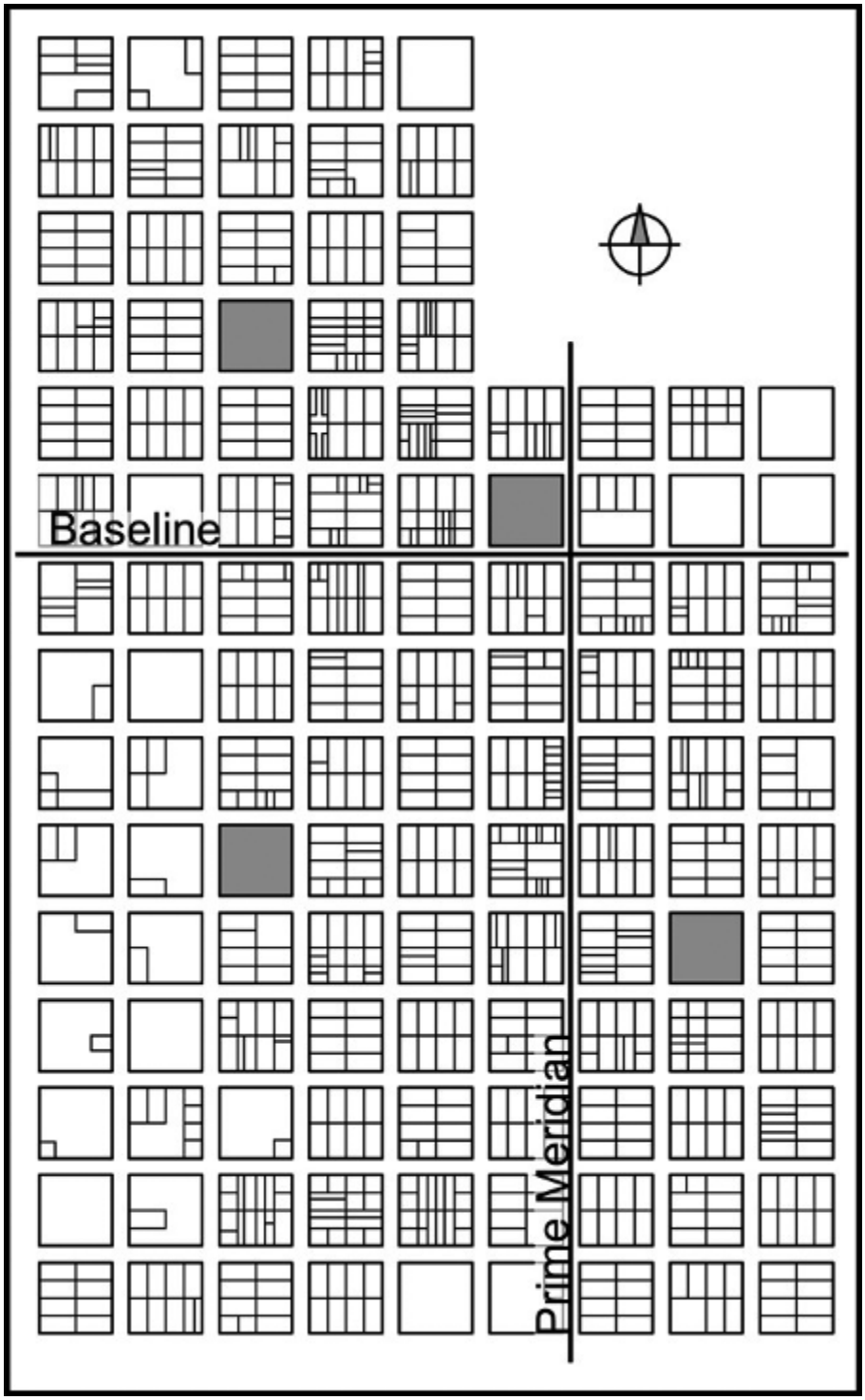

Figure 4: Salt Lake City Plan 1847
Source: Drawing by the author, based on a map available at the Church of Jesus Christ of Latter-day Saints, Historical Department, Salt Lake City, Utah.

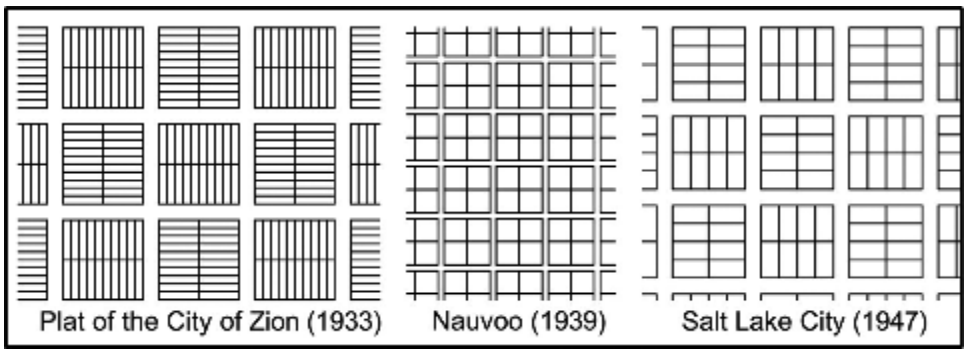

Figure 5: Lot and Block Size Comparison
Source: Drawing by the author.

would be located. The presence of mountain ranges to the north and east inhibited the physical centrality of Temple Square, which was shifted in the northeast direction.[25] In 1859, the City Council formalized a system to name the streets. Temple Square was outlined as the physical and spiritual focus of the city, from which all references of location were made. All streets ran north-south or east-west, and each was named for its distance and direction from the southeast corner of the Temple site.[26] The implicit dominance of the Temple in the town plan was only possible because of the homogeneous character of the community, to whom religion was central.[27]

No construction took place in the city until the plan was finished, the approval was given by church leaders, and the survey was performed. The buying and selling of land and the subdivision of lots was initially forbidden by Brigham Young to avoid land speculation.[28] In the fall of 1847, church leaders were allowed first selection of lots; the allocation of land to the general population took place a year later, and it was free. The size of the lots did not follow the original survey, which had intended to preserve fairness for all residents. In practice, equal distribution was overruled and the dimensions of each property were set according to the size of each man's household, varying greatly (see block subdivision, Figure 4). When polygamy[29] became a common practice among influential members of the church, in most cases each plural wife had her own house on a separate lot.

In laying out the original city of Salt Lake, four blocks were reserved as public squares. One was the site for the Temple, where later the Tabernacle, the Social Hall, and other religious buildings would be added. The second public square was used as the first lodging of the arriving immigrants once the Pioneer fort was built, later in the century becoming Pioneer Park. Washington Square, since 1894 the site of the Salt Lake City and County Building, was originally known as Emigration Square. This block was located slightly off the main area of the original city, but explosive growth incorporated this public space in a brief period. Finally, Union Square was planned on the northwest section of the city, but it never came into being; it

is now the side of West High School. Even if public spaces were not abundant in the first years, Salt Lake City resembled a garden due to the proliferation of shade and fruit trees. By ordinance, sidewalks had to have grass and trees spaced sixteen feet apart, irrigated by open water ditches along the sides of the road. In residential areas, the excessive width of the streets was mitigated by transforming them into parkways.

Surrounding the platted area to the south and west was the land reserved for farming, known as the "Big Field." The blocks here were larger than those in the city, and constituted twenty lots of five acres each. Due to the proximity of their fields to the urbanized area, farmers kept their residences in the city, failing to meet the requirements established by the Presumption Act of 1841 and later the Homestead Act of 1862. These legislations demanded that individuals reside on the land claimed as property. Also, the reduced acreage of the farming lots was in contravention of the Federal Land System. To gain legal title to the land, it became a common practice to select a single "trustee" to file for homestead entry in behalf of several owners of small acreage.[30] Along the same lines, Salt Lake City's large urban blocks and lots did not comply with the federal regulations, but a Congress Amendment in 1869 regularized this situation. That same year, the Federal Land Office was established in Utah, recognizing land titles.

The household economies of the members of the Mormon Church were based on a communal system, formalized in 1874 as the "United Order."[31] With an intention towards economic equality, inhabitants deeded all properties and produce to the church, which then redistributed them according to common need. The land surrounding the settlements was collectively owned and farmed, with private dwellings kept in urban areas to consolidate social interaction. Rejecting what they considered an individualistic economic order that prevailed in the nineteenth-century United States, Mormons stressed group interest over personal interest. In developing their system of services and infrastructure, Mormons did not rely on private enterprise or individual initiatives but on the united efforts of the entire community. Therefore, a communal strategy of work was used for the construction of public buildings, which were the ultimate manifestations of social integration. Each citizen had a schedule for communal work, contributing to the construction of bridges, irrigation canals and ditches, transportation systems, defense installations, fencing and farming fields, and any other improvements deemed necessary by their leaders. This open cohesion gave a distinctive shape to Mormon town life, quite different from the heterogeneity of other urban societies in the United States at the time.

Along the same lines, natural resources were considered a divine gift, therefore they could not be privately owned. Ironically, the lands that they so efficiently platted, distributed, worked, and irrigated were not legally theirs, but initially belonged to Mexico. Utah joined the United States as an "Indian Territory" in 1850,[32] after the 1848 Treaty of Guadalupe Hidalgo, but did not obtain statehood until 1896.

The city was religiously, socially, and administratively held together by a framework of institutions. The church's wards,[33] which paralleled administrative districts or neighborhoods, provided cultural and recreational programs to integrate each small community of approximately five hundred people. Breaking down the anonymity of the large city into more comfortable numbers allowed the church to exert more authority over family life. For members, the wards provided a magnetic effect, providing a social space where they could share common interests and establish common aims. To ensure cohesion and social control, the church intervened directly in social, family, and economic matters. Sunday services and other weekly gatherings served as forums where local issues were openly discussed, establishing a public commitment to participation and appropriate behavior.[34] If a citizen later disobeyed the dictates to which he had publicly assented, he faced strong community disapproval. While in the rest of the United States libertarian ideologies increased during the Civil War, the Mormon community successfully preserved order and authority.

Brigham Young adapted Joseph Smith's conceptual Plat of the City of Zion to the realities of the Great Basin. Salt Lake City became a model for all new settlements following 1847. Exploring parties were sent to select favorable sites in the area, and its survey was strictly supervised by Young during frequent inspection tours. The repetition of a singular model is the reason why most towns in Utah share similar features, such as the north-south or east-west orientation of the regular grid pattern, roadside irrigation ditches and trees, broad streets systematically named, oversized blocks and lots, low density, and communal farm fields surrounding the town. Even if among Mormon settlements the variations[35] in layout and dimensions are broad, they can still be grouped as a unique urban practice, as indicated by several studies.[36]

Departure from the Original Model

In an effort to spread the religion, early Mormon leaders organized a cohort of missionaries who would travel to other states and countries to convert others. Acting as sponsors, the church provided chartered ships, loans, food, and temporary lodging to immigrant converts. A year after the foundation of Salt Lake City, the constant arrival of new believers forced the city to incorporate more platted land, surveyed by Henry Sherwood (see Figure 6). Sixty-three blocks comprising Plat B were added to the east side of the existing city, including one public square, which later became Trolley Square. In 1849, Plat C followed with 84 blocks more, as well as new farmland to the west of the urbanized area. The farther the farm lots were from the consolidated city, the larger they were. In the late 1850s, the city extended its urban area to incorporate Plat D. The North Bench, known as "the Avenues," was the first major departure from the original plan of the

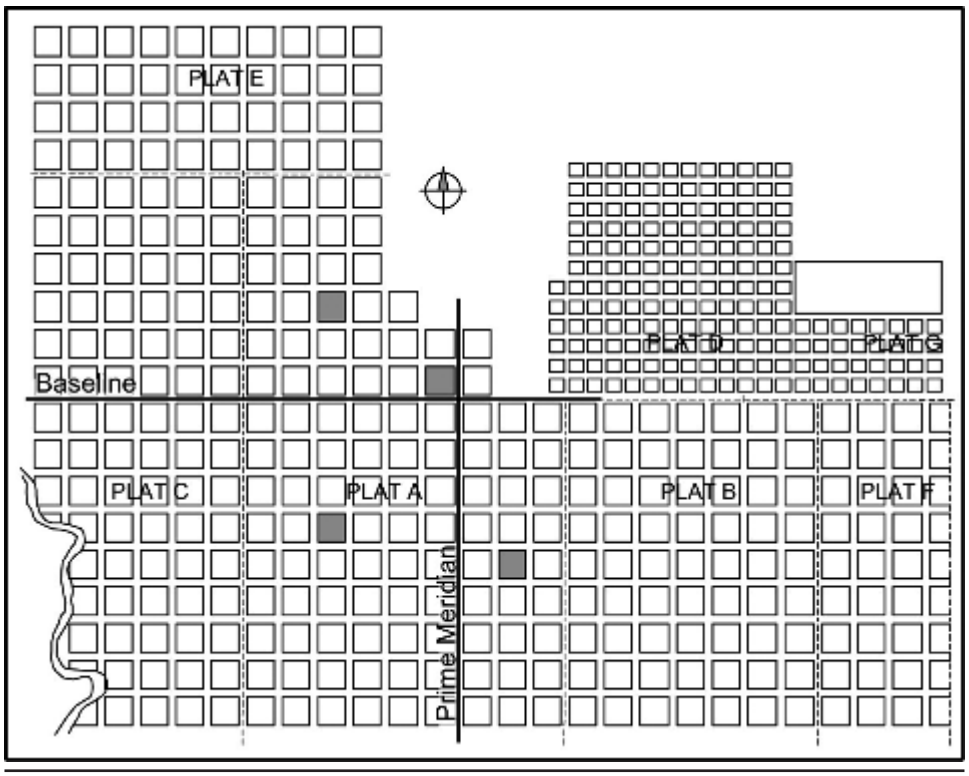

Figure 6: Salt Lake City Plan, 1867
Source: Drawing by the author, based on original at the Church of Jesus Christ of Latter-day Saints, Historical Department, Salt Lake City, Utah.

city. The general dimensions of its streets, blocks, and lots were half the size of the existing ones, better suited to the slope of the terrain and more profitable for investors. As this addition was in violation of the Utah law requiring uniform surveys throughout the state, it required an amendment by the Legislature, which was passed in 1860.[37] This residential area was almost immediately occupied by a rising middle class of artisans, tradesmen, and workers who wanted to be close to the business district. Plat D originally included 56 blocks, but in 1867 it was enlarged to 150 blocks.

The year 1867 represented a turning point in Salt Lake City's urban form. Besides the addition of 94 blocks to Plat D, Plats E (40 blocks), F (31.5 blocks), and G (32 blocks) were incorporated (see Figure 6). After these add-ons, the city reached the physical limit of its expansion, restricted to the east by Fort Douglas, to the north by the mountains, to the west by inappropriate land, and to the south by agricultural land. In the 1870s, more land was required; therefore the community fields from 900 South Street to 2100 South Street were platted. A third street pattern was incorporated, with smaller, rectangular blocks, more marketable and efficient.[38] Increasingly, economic interest and land speculation started to guide the definition of Salt Lake City's urban form.

A brief discussion of Salt Lake City's population growth is essential to understanding its urban development. Beginning with a population of two thousand in 1847, it quadrupled in ten years. By 1880, 37 percent of the twenty thousand inhabitants were foreign-born. The period of most rapid growth was during the 1880s and 1890s, when the population rose to thirty-five thousand in 1889 and sixty thousand in 1898. In the twentieth century, the increase continued but at a slower rate. The transitory population of Salt Lake City was even larger. Soon after newcomers arrived, they were sent around the region to inhabit new settlements. Only 29 percent of the incoming population stayed in the state capital in the 1850s, whereas two decades later 76 percent of them chose to reside there.

The founders' model of a self-sufficient community without contact with the outside world did not last long. When the site for the city was chosen, it was an uninhabited area, more than a thousand miles away from the closest town. Increasingly, travelers going west to the newly discovered gold mines in California traveled through the city, sharing their experiences and trading goods. A crucial event in this process was the completion of the Transcontinental Railroad in 1869. It stimulated the immigration of non-Mormons, simplified travel, promoted the diversification of Utah's economy, allowed massive transportation of goods, and integrated the area into the economy of the United States. The church had an ambivalent attitude toward this significant event. The strong support that the project received from Mormon leaders seemed to endorse the opening of the local economy to the major economic and social trends predominant in the rest of the country. Nevertheless, the same year a protectionist program of collective ownership and work was organized. The ZCMI (Zion Co-operative Mercantile Institution) corporation embodied an anachronistic intent to continue with the original model of self-sufficiency. Among the proliferation of settlements in the area, Salt Lake City became the most prominent urban center, considered the religious, political, economical, and financial capital of the Great Basin.

The decade of the 1870s constituted a paradigmatic change in the city's planning practice. Until that time, the power of the church was involved in every decision concerning the city, its initial layout, and its early growth. Policies were set to fix standards for every aspect of the urban landscape, ensuring a controlled, homogeneous, and egalitarian community for its members. In the 1870s, political changes and population diversification forced a progressive opening of the church's structure, which was no longer accepted as unquestioningly as before. The decaying health and eventual death in 1877 of Brigham Young, who personally followed all matters concerning the development of the city, also contributed to this attenuating involvement. The physical determination of the city was left in the hands of private owners, promoters, and land speculators, whose unregulated practices are evident in the progressive lot subdivision, street opening, and urban expansion.[39]

Originally, no area in the city was socially, functionally, or economically differentiated. After the completion of the train line and the consequent introduction of social diversification and division, Salt Lake City's pattern of land use changed dramatically. The railroad track and its massive depots created a deterrent to circulation, splitting the city in two and progressively isolating the west side from the rest of the city. Over time, this area replaced residential use with commercial, transportation, and industrial structures and became increasingly blighted. City services were extended much more slowly to this area than to other parts of the city. Disagreeable industries, services, and enterprises tended to be located there, including by the 1890s the city dump and the crematory.[40] What came to be known as the Gateway district was differentiated from the rest of the city not only by use but by building type, density, block irregularity, and lot grouping.

With the coming of the railroad, the city's non-Mormon population increased and diversified rapidly. Miners, unskilled workers, and an illiterate immigrant class were drawn by the promise of jobs. This low-income class resided primarily on the edges of town, leased property from absentee landlords, and remained relatively invisible to mainstream Mormon social life.[41] In 1867, before the arrival of the train, 93 percent of the population belonged to the Church of the Latter-day Saints; by 1891, the number had decreased to 50 percent.[42] Despite this polarization, there was no lack of diversity among the "gentiles." Different ethnic backgrounds were increasingly visible at the turn of the century, particularly in the west side of the city. Greeks, Japanese, Chinese, Italians, and Slavic minorities ran small family business and joined in social and religious congregations. These spaces became the "gentile" culture of the city, standing in opposition to the hegemony of the Mormon population. The way public spaces emerged in the west side was different than in the traditional city. In the place of grand blocks, such as Temple Square or Washington Square, public spaces in this area were centered on clusters of common vernacular buildings. They were made meaningful by the social interactions that played out on the streets, on inner blocks, and apart from the Mormon dominance of the eastern side of the city.[43]

The scale of Salt Lake City's original blocks and lots followed the specifications dictated by the Plat of the City of Zion. Such a prescription was devised as a solution to problems of the day and served its purpose well, but changes in urban reality forced the city to modify its norms. Taking city making into their own hands, individuals opened streets and alleys beginning in the late nineteenth century, providing accessibility and livability to the cores. Limited official regulation and control gave promoters almost absolute freedom, and their profit schemes and speculations became the rule.

Salt Lake City's economy changed dramatically in a brief period of time. Agriculture, which in the 1850s represented almost 40 percent of the

Figure 7: Main Street, Downtown Salt Lake City, 1890
Source: Utah Historical Society Archives, Salt Lake City, Utah.

wealth distribution, dropped to 8 percent two decades later. Commerce and manufacturing escalated from an original 10 percent to 35 percent in 1870. This shift in the functional basis of the city from a religious center to the primary economic center of the region was accompanied by a reconfiguration of power. Business elites took over the principal roles in city management from church leaders. A progressive concentration of wealth, particularly in land ownership, meant that by the turn of the nineteenth century 20 percent of the population owed 92 percent of the city's property. Property values were easily manipulated, and land speculation became a mainstream practice. The consequences of this procedure are still visible in the underdeveloped interstitial areas of downtown.

The expansion of the city from an agricultural village to an urban complex also created new functional needs. In the original layout of the city, no provision existed for a business district. Nevertheless, within a few years one spontaneously began to develop. Some shops and retail stores opened in the area of Main Street, between South Temple Street and 100 South Street, while most professional services were located on the side streets. Salt Lake City slowly began to look like any other major late-nineteenth-century city in the United States, with a small, compact, and pedestrian commercial area (see Figure 7).[44] In the 1870s, most businesses were located at home, but owners gradually moved their residences away to maximize the profit on their downtown land, progressively subdividing their property into smaller units. The smaller allotment also meant a change in business, with manufacturing giving way to service-oriented stores. Prostitution and liquor, once nearly unknown in Salt Lake City, emerged in the 1890s as the city grew. Brothels, saloons, and taverns multiplied on the outer edge of downtown, and 300 South Street became known as the "red-light district." Salt Lake City had become a cosmopolitan urban center.

After the Plat additions of 1867, urban development followed a process of infill, concentrated in the low-density areas of the existing city. The already built-up portions of the central and residential areas testified to an accelerated subdivision. New residential typologies flourished, including duplex and apartment buildings, to satisfy the increasing need to lodge the incoming population and the new generations of traditional residents. The original oversized lots had reserved a large portion for orchards and barns, but the change in habits and the availability of more products for purchase made these functions unnecessary. In an attempt to maximize land use and value, most city lots were subdivided. The ideal homogeneous and egalitarian residential distribution of the early city started to show evidence of class distinction by the late nineteenth century. Originally, people were distinguished by their tenure in the city, in favor of the initial pioneers. As the population increasingly settled, economic and ethnic matters progressively ruled the stratification of society and the location of groups within the city. Working-class neighborhoods were mostly found on the west side, middle-class population in the south and east areas, and higher incomes in the North Bench. The factors lending value to each location were elevation; views; air quality; proximity to the city center; density level; land uses around the site; and the availability of infrastructure, services, and public transit. With the success of the mining industry, a new elite arose. Businessmen moved to mansions along South Temple which openly displayed their achievements. They created social amenities, such as the traditional Alta Club (1883), the Salt Lake Theater, the Social Hall, the Hotel Utah, and the Saltair Lake Resort.[45]

American town design in the early nineteenth century was characterized by the adoption of the grid pattern, a homogeneous layout that could be extended endlessly over the virgin land of the country. Few restrictions by local governments gave relative freedom to land owners and developers, following the trend in the American economy at the time. The Plat for the City of Zion constitutes a paradigmatic example of social utopia that succeeded in the settlement of towns in the Midwest from the mid- to the late nineteenth century.

Salt Lake City's foundation, expansion, and consolidation can be taken as a paradigmatic example of the application of the Mormon town-planning scheme. The theocratic nature of this community, whose cultural, social, political, and economic affairs were directed by church leaders, presented the ideal conditions for a homogeneous society, where strict regulation of life could take place. Over time, the city evolved from the homogeneity of the original model of a religious community toward a mosaic of urban developments and immigrant neighborhoods. As an urban palimpsest, the city reveals layers of different generations' configuration of space. Reading it as one would a canvas, it offers an example of how the city originated following a leader's model; encountered generations of newcomers; and adapted to changing economic, social, religious, and political conditions.

Notes

1. This legislation formalized in 1573 the pattern followed by Spanish colonists since the early sixteenth century in Central and South America. The scheme was centered on a main square and delimited by the main civic and religious buildings. The streets created a grid system coinciding with the north-south and east-west directions. Surrounding the city, communal land would provide recreation for residents and pasture for animals, while an outer ring of private farmland would ensure production and trade of agricultural goods. The first Spanish settlement in United States was St. Augustine, Florida, in 1565.

2. G. Ciucci, F. Dal Co, M. Manieri-Elia, and M. Tafuri, *The American City: From the Civil War to the New Deal* (Cambridge, MA: MIT Press, 1983).

3. This expression was used by Lewis Mumford to refer to the first decades of the nineteenth century, during which a movement of writers and philosophers in New England expressed the pure ideals of American culture just prior to its decline due to industrialization. He formalized it in his book *The Golden Day: A Study in American Experience and Culture* (New York: Harcourt Brace and Co., 1926).

4. This prosperous environment encouraged some European social reformers to test their ideas in the United States after finding little success in their motherlands. Robert Owen developed a model for a new society but, after several frustrated efforts to convince other Englishmen to support his enterprise, he moved to the United States and in 1825 purchased the town of Harmony, Indiana. This settlement was the first and most famous of some fifteen communities that he created in the country between 1825 and 1829. The French theorist Etienne Cabet also chose the United States to fulfill his dream of a socialist community. He founded Icaria, first in Nauvoo, Illinois (a town abandoned by the Mormons) in 1848, and later in Saint Louis.

5. Adopting what is currently a convention, the Church of Jesus Christ of Latter-day Saints will be generally referred to in this article as the Mormon Church.

6. T. Carter, ed., *Images of an American Land* (Albuquerque: University of New Mexico Press, 1997).

7. J. Smith Jr., *History of the Church of Jesus Christ of Latter-day Saints*, 2nd ed., rev., ed. B. H. Roberts (Salt Lake City, UT: Deseret News Press, 1949); and L. Nelson, *The Mormon Village. A Pattern and Technique of Land Settlement* (Salt Lake City: University of Utah Press, 1952).

8. Holy Bible: Isaiah, Ezekiel, and Revelations.

9. R. Jackson, *The Mormon Role in the Settlement of the West* (Provo, UT: Brigham Young University Press, 1978).

10. C. Sellers, "Early Mormon Community Planning," *Journal of American Institute of Planners* 28 (1962): 24-30.

11. Ebenezer Howard (1850-1928) was a parliamentary reporter whose attention was caught by the widespread dissatisfaction with the social and environmental consequences of intensive industrialization. Howard's ideas reflect nineteenth-century Victorian romantic rejection of British cities for their inhumanity and palpable social problems. He connects nineteenth-century social reform, involving communitarian experiments in social regeneration, to twentieth-century professional planners, searching for meaningful patterns of community. His interest in social integration was stirred by two books, Henry George's *Progress and Poverty* and Edward Bellamy's *Looking Backwards*. Howard's model envisioned the decentralization of urban populations into self-contained settlements, surrounded by an agricultural belt. His well-known diagrams became the iconography of the social reform movement that dominated the intellectual discussion mainly in Great Britain during the second half of the nineteenth century. E. Howard, *Garden Cities of Tomorrow* (London: Sonnenschein & Co., 1903). See also M. Miller, "Garden Cities and Suburbs: At Home and Abroad," *Journal of Planning History* 1, no. 1 (February 2002): 6-28.

12. R. Neutra, "The Mormon and the American Community," *The Improvement Era* 63 (February 1960), as quoted in Sellers, "Early Mormon Community Planning," 30.

13. Mark Hamilton discovered the revised plat in the Church Archives in 1978. It presented a paradigmatic shift in the study of Mormon town planning, up to that time restricted to the original model. See M. Hamilton, *Nineteenth-Century Mormon Architecture and City Planning* (New York: Oxford University Press, 1995).

14. The streets delimiting the Temple block remained at 132 feet. The original uniform model came to resemble even more William Penn's proposal for Philadelphia. Penn differentiated the two cross-axial avenues (100 feet) from the other streets (80 feet).

15. J. Reps, *Cities of the American West* (Princeton, NJ: Princeton University Press, 1979); Sellers, "Early Mormon Community Planning," 24-30; and R. Jackson, "The Mormon Village: Genesis and Antecedents of the City of Zion Plan," *Brigham Young University Studies* 17 (1977): 223-40.

16. Ebenezer Howard's garden city model, developed in the late nineteenth century, also surrounded the settlements with an agricultural belt, the forerunner to the present-day greenbelt. In many Mormon towns, this provision later proved strategic to allow the growth of the city, subdividing this communal area into smaller private residential lots.

17. Joseph Smith's doctrine of the gathering indicated that the duty of the brethren was "to come into cities to build and live, and carry on their farms out of the cities, according to the order of God" (Smith, *History of the Church of Jesus Christ of Latter-day Saints*, vol. 3, 56).

18. By 1855, 32 percent of the population of the Great Basin was less than eight years of age, and the majority of the adult population was foreign born. U.S. Population Census Tables; Miller, "Garden Cities and Suburbs."

19. Jackson, *The Mormon Role in the Settlement of the West*.

20. The size was probably chosen to adapt to the preexisting instructions of the federal territorial survey of the area, which created an imaginary grid of one square mile.

21. There were ideological reasons behind this hatred. Many Mormon ideas challenged the economical, political, and cultural life of contemporary United States in their area. Their community-based economy contradicted the capitalist principles that ruled in the rest of the country. They were seen as a political threat, as they always voted as a group, directed by their religious leaders. In their missionary efforts, they tried to convert Native Americans, generating some fear among political leaders of the East Coast of a potential alliance between the two groups. Their later practice of polygamy was furiously rejected, seen as a slavery system involving their own women. Nevertheless, Mormons' open opposition to slavery touched one of the most volatile issues in the nation prior to the Civil War and created a strong antagonism among Southern and conservative states. The radical decision to initiate a new exodus westwards was precipitated by the assassination of Joseph Smith and his brother Hyrum by a mob of Mormon persecutors on June 27, 1844. See Reps, *Cities of the American West*; and J. McCormick, *The Gathering Place: An Illustrated History of Salt Lake City* (Salt Lake City, UT: Signature Books, 2000).

22. P. Limerick, *Legacy of Conquest: The Unbroken Past of the American West* (New York: Norton, 1987): 282.

23. C. Harris, *Salt Lake City: A Regional Capital*, dissertation in candidacy for the degree of doctor of philosophy (Chicago: University of Chicago Press, 1940); and R. Boyce, "An Historical Geography of Greater Salt Lake City, Utah" (MS thesis, University of Utah, Salt Lake City, 1957).

24. The survey was conducted by Apostle Orson Pratt on August 2, 1847.

25. The topography of the northeastern portion of the platted area forced the plan to omit 16 blocks, reducing the number from 135 to 119.

26. The procedure for land surveys under the United States Public Land Survey System was to establish a starting point, called an "initial point," which becomes the intersection of true east-west and north-south direction lines. The southeast corner of Temple Square was taken as the base point for the survey of this portion of the country in 1855. Main Street became the prime meridian and South Temple Street the base line of the region. B. Scheer, "The Mormon Grid: Zion in the Desert" (presented at the International Seminar of Urban Form, Trani, Italy, 2003).

27. L. Arrington and D. Bitton, *The Mormon Experience: A Story of the Latter-day-Saints* (Urbana: University of Illinois Press, 1992).

28. Brigham Young said, "Each man must keep his lot whole, for the Lord has given it without price" (as quoted in J. McCormick, *The Gathering Place*, 30).

29. Polygamy was adopted in 1852 and officially outlawed by the church in 1890.

30. S. Schuster, "The Evolution of Mormon City Planning and Salt Lake City, Utah, 1833-1977" (M.S. thesis, University of Utah, Salt Lake City, 1967); and W. Wahlquist, "A Review of Mormon Settlement Literature," *Utah Historical Society Quarterly* 45, no. 1 (Winter 1977): 4-21.

31. Attempts to organize this system go back to the Law of Consecration initiated by Joseph Smith in Ohio and Missouri and the Consecration Deeds of the mid-1850s. It was finally formalized by Brigham Young.

32. U.S. President Millard Fillmore created Utah Territory in September 1850 and declared Brigham Young its first governor.

33. In urban studies of Salt Lake City, the relevance of these religious institutions is enormous. Ward records were highly complete, providing detailed material of the city's economic activities, population composition, urban growth, and many other relevant features. Furthermore, ward boundaries did not

only define religious congregations, they delimited voting districts, administrative neighborhoods, and census units.

34. D. May, "The Making of Saints: The Mormon Town as a Setting for the Study of Cultural Change," *Utah Historical Society Quarterly* 45, no. 1 (Winter 1977): 75-92.

35. Among the deviations, the main differences lie in the block dimension (4 to 10 acres), lot size (0.5 to 2 acres), and the number of lots per block (4 to 14).

36. Reps, *Cities of the American West*; Hamilton, *Nineteenth-Century Mormon Architecture and City Planning*; and M. Travis, "Social Stratification and the Dissolution of the City of Zion in Salt Lake City, 1847-1880" (Ph.D. diss., Department of History, University of Utah, Salt Lake City, 1995).

37. McCormick, *The Gathering Place*; and Schuster, *Evolution of Mormon City Planning and Salt Lake City*.

38. These rectangular blocks resembled in proportion those incorporated in New York in its 1811 plan for expansion. Land speculation and the maximization of profit produced these blocks with narrow faces.

39. Based on Sandborn Company Map Collection. Sandborn Map Company. Map Collection of Salt Lake City for years 1884, 1889, 1898. Marriot Library, University of Utah, Salt Lake City, Utah.

40. To generate the morphogenesis analysis of this district, successive sets of Sanborn maps of Salt Lake City were studied. Sanborn maps were first designed in 1850 to assist fire insurance agents in determining the degree of hazard for a particular property. They indicate street, lot size, owner, and use; and they illustrate in detail the building's footprint, height, material, available services, and so on.

41. M. Bradley, "Mapping the Sacred City: Identity, Space and the Plat of the City of Zion" (presented at the Making Livable Cities Conference, Siena, Italy, 2003).

42. These numbers only reflect the reality of Salt Lake City, as the rest of the state remained predominantly Mormon. McCormick, *The Gathering Place*, 64; and Bradley, "Mapping the Sacred City."

43. D. Hayden, *The Power of Place: Urban Landscapes in Public History* (Cambridge, MA: MIT Press, 1995)

44. T. Alexander and J. Allen, *Mormons and Gentiles: A History of Salt Lake City* (Boulder, CO: Pruett, 1984).

45. These new facilities expressed an awareness of a broader culture, beyond religious life, as in any non-Mormon city in the East Coast or Europe. Also, they exacerbated the differentiation between the desirable areas of culture to the east of the city and the devalued regions of the railroad and polluting industries to the west.

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